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(54) ORGANIC ELECTROLUMINESCENT ELEMENT AND ITS MANUFACTURE

(57) Abstract:

PROBLEM TO BE SOLVED: To provide an organic electroluminescent element which has high luminescent intensity even if a driving voltage is low, and excellent durability while allowing high luminous energy to be extracted from it.

SOLUTION: This element 104 is composed by providing a structure wherein at least a positive electrode layer 10, a positive hole injection layer 12, an organic luminescent layer 14 and a negative electrode layer 16 are sequentially laminated. In this case, the positive hole injection layer 12 is formed of an n-type inorganic semiconductor material, and when it is assumed that the Fermi energy of the positive hole injection layer 12 is Φ_h and the Fermi energy of the positive electrode

layer 10 is Φ_a , the relationship of $\Phi_h > \Phi_a$ should be satisfied, and the value of the absorption coefficient of the n-type inorganic semiconductor material should be set to $1 \times 10^4 \text{ cm}^{-1}$ or less.

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